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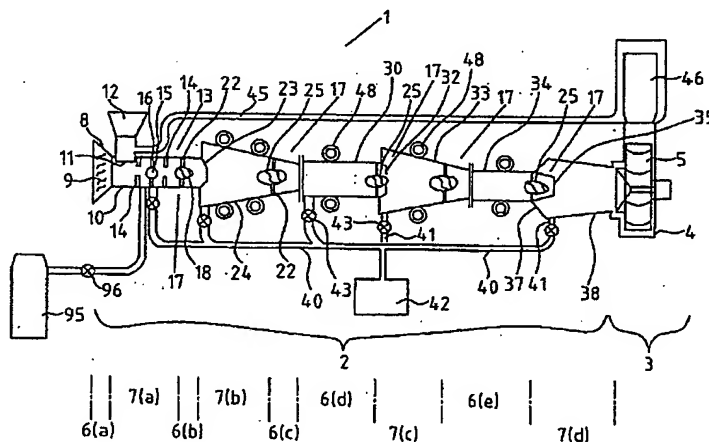
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(54) Title: IMPROVED DEWATERING APPARATUS AND METHOD FOR WATER TREATMENT AND ENERGY GENERATION



(57) Abstract: The invention provides a pneumatic dewatering apparatus (1) for wet product. The apparatus (1) comprises essentially a cyclone chamber (2) connected to a centrifugal fan (3). Various vortex flow forming stations (6), each followed by a vortex shedding station (7), are mounted within the cyclone chamber (2). Tight centripetal vortices are formed and are then shed such that water is delivered out the cyclone chamber (2) into a sump (42). As part of the process, ionisation of the fluid occurs as it progresses through the cyclone chamber (2). Additional ionisation means, namely, a plasma generating device including a hollow toroidal unit (48), is provided. Other ionisation means include the use of magnets, associated anodes and cathodes and ozone generators.

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